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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Michael P. Ryan et al Date: December 18, 2003

Serial No.: 10/049,697 Examining Gr.: 3652

Filed: June 5, 2002 Examiner: James W. Keenan

For: REFUSE COLLECTION VEHICLES AND
METHOD OF MANUFACTURING

APPEAL BRIEF

Honorable Assistant Commissioner of Patents,
Washington, D.C. 20231

Filed herewith is an amendment to the claims to remove issues addressed in the 35 USC 112 rejection and place the application in better condition for allowance or appeal. This amendment adopts and combines the language previously approved by Examiner in regard to the Amendment of September 26, 2003 (to be entered for purpose of appeal) and the Interview Summary of November 14, 2003 for the purpose of removing the 35 USC 112 rejection.

(1) REAL PARTY IN INTEREST
THE HEIL COMPANY

(2) RELATED APPEALS AND INTERFERENCES
None

(3) STATUS OF THE CLAIMS

Claims 1-8 (Cancelled)

Claims 9-26 (Rejected and Appealed)

(4) STATUS OF AMENDMENTS

Amendment of September 26, 2003 – To be entered for appeal. However, Appellant wishes it not to be entered if the amendment filed herewith is entered.

Amendment Filed Herewith and in substitution for the Amendment of September 26, 2003 – Incorporates combines the language approved by Examiner in the Amendment of September 26, 2003 and the language approved in the Interview Summary of November 14, 2003 – To be entered for appeal.

(5) SUMMARY OF THE INVENTION

The following is found at page 6, lines 1-17:

Briefly, to achieve the desired objects and advantages of the instant invention, a congeneric series of refuse collection vehicles (front loader, side loader and rear loader) is manufactured from modules. The primary modules are the body module 72 (Figs. 2 and 8-10), the tailgate module 82A, 82B or 82C (Figs. 5-7) and the hopper module 92A, 92B or 92C (Figs. 11-14). The body module 72 is preferably manufactured with a constant cross-sectional perimeter, shape or profile (Figs. 8-10). The refuse storage capacity of the body module is changed by varying the length of the body module 72 (Figs. 8-10). The tailgate module 82 and the hopper module 92 are manufactured to have a cross-sectional perimeter that mates with cross-sectional perimeter of the ends of the body module 74, 76 where they overlie each other. The lifter module 102A, 102B or 102D (Figs. 11-14) is added to the chassis 42, the tail gate module 82 or the body module 92. The modules are formed from a base set of pieces that are the same for each module and a selected /specified set of pieces that are dictated by the type of refuse collection vehicle selected. The dedicated tooling, fixtures and jigs are the same for each selected/specified module.

The invention is set forth in the independent claims 9,15 and 21 in the underlined portions for emphasis:

Claim 9 (Currently amended): A fleet of refuse collection vehicles (RCVs) comprising the following types of RCVs,

a front loader refuse collection vehicle (RCV) made from a body module, a hopper module and a tailgate module and

a side loader RCV made from a body module, a hopper module and a tailgate module,

each body module having similar ends,

each body module being manufactured so that one end will mate with and overlie an end of a tailgate module of a front loader RCV and a side loader RCV and so that the other end will mate with an end of a hopper module of a front loader RCV and a side loader RCV.

Claim 15 (Currently amended): A fleet of refuse collection vehicles (RCVs) comprising the following types of RCVs,

a front loader refuse collection vehicle (RCV) made from a body module, a hopper module and a tailgate module and

a rear loader RCV having a body module and a tailgate module made from a hopper combined therewith,

each body module having similar ends,

each body module being manufactured so that one end will mate with and overlie an end of a tailgate module of a front loader RCV and a rear loader RCV and so that the other end will mate with an end of a hopper module of a front loader RCV.

Claim 21 (Currently amended): A fleet of refuse collection vehicles (RCVs) comprising the following types of RCVs,

a side loader RCV made from a body module, a hopper module and a tailgate module and

a rear loader RCV made from a body module and a tailgate module having a hopper combined therewith,

each body module having similar ends,

each body module being manufactured so that one end will mate with and overlie an end of a tailgate module of a side loader RCV and a rear loader RCV and so that the other end will mate with an end of a hopper module of a side loader RCV.

The independent claims 9, 15 and 21 each claim two of the set of three different types of RCVs – front loader, side loader and rear loader. These claims replaced the original claims to remove a previous 35 USC 112 rejection on "alternate claiming". Thus, each independent claim requires that there be at least two different types of RCVs incorporating the invention. Claim 9 requires a front loader and a side loader. Claim 15 requires a front loader and a rear loader. Claim 21 requires a side loader and a rear loader.

The invention addresses many of the difficulties of the industry:

The following is found at page 3, line 7 to page 4, line 11:

Typically, the fledgling manufacturer of refuse handling vehicles begins by fabricating a single specific unit. A production line is established with the attendant tooling, jigs and fixtures dedicated to that unit. As the company grows, the unique appearance of that initial unit provides name recognition. Subsequently, the company desires to add another refuse handling unit to which the components of the initial unit are not adaptable. A second production line, with attendant dedicated tooling, jigs and fixtures, is then established. Hence, the company expands by increasingly adding production lines. It is commonplace for established manufacturers to have several unique production lines, each producing a specific configuration with a dissimilar appearance. While components may be interchangeable among units produced on a given

production line, only minor components are interchangeable with units from another line.

It is immediately apparent that the several production lines require considerable floor space within the manufacturing facility. An immense inventory of subassemblies, components and parts, unique to each line, must be fabricated and maintained. Each requires a substantial investment in dedicated tooling, fixtures and jigs. Numerous employees, including fabrication, supervisory and quality control personnel, each trained and specializing in the fabrication of a particular unit and not readily transferable to another unit, are mandatory to operate the several lines. Accordingly, the manufacture of a refuse collection unit is inordinately expensive; a cost which is passed on the consumer.

The multiplicity of products, differing in appearance greatly diminishes product recognition. Should the company desire to produce yet another configuration, recognition would not be inherently present. Concentration on fewer parts simplifies and enhances quality control.

The addition of a new unit is replete with various expensive and time consuming considerations. Initially required is extensive engineering to design the unit from conception to finished product. Then additional floor space must be acquired and allotted to the establishment of yet another production line. New tooling and fixtures must be crafted. Finally, additional personnel must be acquired and trained.

The invention ameliorates many of the difficulties:

The following is found a page 4, line 13 to page 5, line 20:

Accordingly, it is an object of the present invention to provide a method of producing a congeneric series of diverse refuse collection vehicles with minimal components and subassemblies.

Another object of this invention is the provision of means whereby variously configured refuse collection vehicles many be produced, interchangeably, upon a single production line.

And another object of the invention is to provide a method of fabricating a fleet of diverse refuse collection vehicles utilizing mutual tooling, jigs and fixtures.

Still another object of the instant invention is the provision of means of producing a fleet of refuse collection vehicles sharing numerous common parts, components and subassemblies.

Yet another object of this invention is to provide means for producing a variety of refuse collection vehicles with substantially reduced inventory.

And still another object of the invention is the provision of a method of production requiring reduced floor space, personnel and other facilities.

Yet still another object of immediate invention is to provide a method of manufacturing whereby the time and expense of adding a new product will be substantially reduced.

And a further object of the invention is the provision of a method of readily producing refuse collection vehicles of varying capacity.

A still further object of the invention is to provide for method of manufacture whereby a refuse collection vehicle of a specific configuration is readily and easily convertible to another configuration.

And still a further object of the invention is the provision of a method, according to the foregoing, which will substantially reduce the cost of fabricating refuse collection vehicles.

(6) ISSUES

The final rejection of claims 9-26 under 35 USC 112 is submitted to be removed by the amendment filed herewith.

Whether claims 9-26 are unpatentable under 35 USC 103 over Schaffler (US 4,096,959), Zanzig (US 6,183,185) or Winter (US 4,986,716) in view of Bonfilio (US 4,676,545). The Appellant has combined the rejections of the claims in order to simplify the issues. All of the claims will stand or fall on whether the Bonfilio reference is relevant to and teaches how to modify Schaffler, Zanzig and Winter to meet the limitations of the claims.

(7) GROUPING OF THE CLAIMS

All of the claims stand or fall together.

(8) ARGUMENT

The rejection of all of the claims, which are directed to refuse collection vehicles, is based on the use of the Bonfilio reference as the teaching reference. Bonfilio deals with the creation of a cabin and chassis (Fig. 2, elements 12-16) for a vehicle that can be made into an airplane (Fig. 4), a helicopter (Fig. 5), a boat (Fig. 6), a hydrofoil (Fig. 7), a paddle wheel boat (Fig. 8), a snowmobile (Fig. 9) and a tractor/tank (Fig. 10).

There is no discussion in the Bonfilio reference of applying the teachings therein to the refuse collection vehicle industry nor has the Examiner shown that it is reasonably pertinent to the particular problem with which the inventor was concerned, as is required. "In order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of applicant's endeavor or, if not, then reasonably pertinent to the particular problem with which the inventor was concerned." In re Oetiker, 977 F2d 1443, 1446, 23 USPQ2d 1641, 1645 (Fed. Cir. 1992). Bonfilio discloses no recognition of the problem of the several production lines requiring considerable floor space within the manufacturing facility nor the immense inventory of subassemblies, components and parts, unique to each line, which must be fabricated and maintained in the refuse collection industry. Bonfilio evidences no recognition of a substantial savings in dedicated tooling, fixtures and jigs for refuse collection vehicles possible by employing the invention claimed here. Bonfilio does not teach nor suggest that concentration on fewer parts simplifies and enhances quality control and reduces training in the refuse collection art. In short, Bonfilio is not pertinent to the problems that were confronting the inventor at the time this invention was made.

Specifically, Bonfilio teaches a vehicle that can be configured to be two different lighter than air vehicles, three different seaworthy vehicles and at least two different types of terrestrial vehicles. Therefore, Bonfilio teaches the use of his modular chassis with different types of propulsion systems. Appellant's invention uses the same propulsion system throughout its different types of refuse collection vehicles. Further, the Appellant buys the chassis and manufactures the body module, the hopper module and the tailgate module which are added to the chassis (page 10, lines 7-17).

Further, Bonfilio envisioned making the chassis at a central plant and shipping and manufacturing the vehicle elsewhere (column 2, lines 49-54). Appellant manufactures the refuse collection vehicle at a central plant and ships the vehicle elsewhere.

Only with the benefit of Appellant's specification could the references to Schaffler, Zanzig and Winter be modified to make the changes necessary to meet the language of Appellant's claims. That language is set forth in all of the independent claims and shown underlined for emphasis here in independent claim 9:

Claim 9 (Currently amended): A fleet of refuse collection vehicles (RCVs) comprising the following types of RCVs,

a front loader refuse collection vehicle (RCV) made from a body module, a hopper module and a tailgate module and

a side loader RCV made from a body module, a hopper module and a tailgate module,

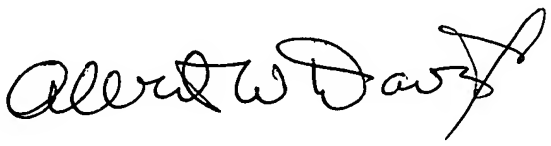
<u>each body module having similar ends</u>,

each body module being manufactured so that one end will mate with and overlie an end of a tailgate module of a front loader RCV and a side loader RCV and so that the other end will mate with an end of a hopper module of a front loader RCV and a side loader RCV.

Schaffler, Zanzig and Winter are completely conventional RCVs that suffer the same disadvantages discussed in Appellant's specification with respect to the prior art. These references were applied only to show the elements that are claimed and that are well known in the industry.

Therefore, it is submitted that Bonfilio is not relevant to the refuse collection industry and the teachings of Appealant. Further, it is submitted that the specific limitations of the independent claims 9, 15 and 21 are not found in Schaffler, Zanzig or Winter when viewed in combination with the broad teaching of Bonfilio.

For the above reasons, it is respectfully requested that the rejections of claims 9-26 under 35 USC103 be reversed.



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(9) APPENDIX

Claims 1-8 (Previously numbered 1-5,5,6 and 7) (Cancelled)

Claim 9 (Currently amended): A fleet of refuse collection vehicles (RCVs) comprising the following types of RCVs,

a front loader refuse collection vehicle (RCV) made from a body module, a hopper module and a tailgate module and

a side loader RCV made from a body module, a hopper module and a tailgate module,

each body module having similar ends,

each body module being manufactured so that one end will mate with and overlie an end of a tailgate module of a front loader RCV and a side loader RCV and so that the other end will mate with an end of a hopper module of a front loader RCV and a side loader RCV.

Claim 10 (Currently amended): The fleet of RCVs of claim 9 wherein,

each body module includes a refuse storage capacity,

the body modules have varied lengths to create a different refuse storage capacity for each RCV.

Claim 11 (Previously presented): The fleet of RCVs of claim 9 wherein, the front loader RCV has a hopper module with a loader module attached to the hopper module.

Claim 12 (Currently amended): The fleet of RCVs of claim 9 wherein, the front loader RCV has a loader module attached to a chassis portion of the RCV.

Claim 13 (Previously presented): The fleet of RCVs of claim 9 wherein, the side loader RCV has a loader module attached to a chassis portion of the RCV.

Claim 14 (Currently amended): The fleet of RCVs of claim 9 wherein, the side loader RCV has a loader module attached to the hopper module of the RCV.

Claim 15 (Currently amended): A fleet of refuse collection vehicles (RCVs) comprising the following types of RCVs,

a front loader refuse collection vehicle (RCV) made from a body module, a hopper module and a tailgate module and

a rear loader RCV having a body module and a tailgate module made from a hopper combined therewith,

each body module having similar ends,

each body module being manufactured so that one end will mate with and overlie an end of a tailgate module of a front loader RCV and a rear loader RCV and so that the other end will mate with an end of a hopper module of a front loader RCV.

Claim 16 (Currently amended): The fleet of RCVs of claim 15 wherein,

each body module includes a refuse storage capacity,

the body modules have varied lengths to create a different refuse storage capacity for each RCV.

Claim 17 (Previously presented): The fleet of RCVs of claim 15 wherein,

the front loader RCV has a hopper module with a loader module attached to the hopper module.

Claim 18 (Currently amended): The fleet of RCVs of claim 15 wherein, the front loader RCV has a loader module attached to a chassis portion of the RCV.

Claim 19 (Currently amended): The fleet of RCVs of claim 15 wherein, the rear loader RCV has a loader module attached to the tailgate module of the RCV.

Claim 20 (Curently amended): The fleet of RCVs of claim 15 wherein, the rear loader RCV has a loader module attached to a body module portion of the RCV.

Claim 21 (Currently amended): A fleet of refuse collection vehicles (RCVs) comprising the following types of RCVs,

a side loader RCV made from a body module, a hopper module and a tailgate module and

a rear loader RCV made from a body module and a tailgate module having a hopper combined therewith,

each body module having similar ends,

each body module being manufactured so that one end will mate with and overlie an end of a tailgate module of a side loader RCV and a rear loader RCV and so that the other end will mate with an end of a hopper module of a side loader RCV.

Claim 22 (Currently amended): The fleet of RCVs of claim 21 wherein,

each body module includes a refuse storage capacity,

the body modules have varied lengths to create a different refuse storage capacity for each RCV.

Claim 23 (Previously presented): The fleet of RCVs of claim 21 wherein,

the side loader RCV has a loader module attached to a chassis portion of the RCV.

Claim 24 (Currently amended): The fleet of RCVs of claim 21 wherein, the side loader RCV has a loader module attached to the hopper module of the RCV.

Claim 25 (Currently amended): The fleet of RCVs of claim 21 wherein, the rear loader RCV has a loader module attached to the tailgate module of the RCV.

Claim 26 (Currently amended): The fleet of RCVs of claim 21 wherein, the rear loader RCV has a loader module attached to a body module portion of the RCV.